

(1) International Application Number: PCT/US98/17587  
 (2) International Filing Date: 25 August 1998 (25.08.98)  
 (3) Priority Date: 08/919,830 28 August 1997 (28.08.97) US

(4) Applicant: ASCEND COMMUNICATIONS, INC. [US/US]; 1 Robbins Road, Westford, MA 01886 (US).

(5) Inventors: GANMUKHI, Mahesh, N.; 1286 Curvo Street, Carlisle, MA 01741 (US); DEANGELIS, Patrick, L.; 278 Hudson Street, Northborough, MA 01532 (US); BARACKA, Ronald, Louis, Jr.; 64 Fort Meadow Drive, Hudson, MA 01749 (US).

(6) Agents: LEBOVICI, Victor, B. et al; Weingarten, Schurgen, Gagnabin & Hayes LLP, Ten Post Office Square, Boston, MA 02109 (US).

(81) Designated States: AU, CA, JP, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

#### Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Title: CELL COMBINATION TO UTILIZE AVAILABLE SWITCH BANDWIDTH

#### Abstract

An apparatus and method for combining the combination of multiple streams of data cells into a single thread. By enabling plural ports of an intermediate device to access a single parallel output of the device, plural network switch elements share a single thread through a switch fabric. For example, the method and apparatus interleaving the relatively low bandwidth cell outputs of two ATM switch central control processors (202A, 202B) onto a single thread (212) routed through an integrated switch fabric (204). Otherwise these cells are received from the switch fabric at a parallel input of the intermediate device, then routed of plural serial output ports. If cells provided to the plural output ports prevents exceeding the thread bandwidth.

